

**What is claimed is:**

1. A method for distributing multi-program audio over a network comprising:
  - creating a network audio frame from a plurality of blocks of data from at least one audio program;
  - 5 placing each network audio frame within a transport structure for transport across the network; and
  - assigning an address to the transport structure prior to delivering the transport structure to a physical media.
- 10 2. The method of Claim 1, wherein the network includes one of a Local Area Network (LAN), Wide Area Network, an Intranet or Internet.
- 15 3. The method of Claim 1, wherein the transport structure is an Open Systems Interconnection (OSI) model layer 2 frame such as a Medium Access Control (MAC) frame.
4. The method of Claim 1, wherein the transport structure is an application structure, placed within one of an Open System Interconnection model (OSI) layer 4 structure, an OSI layer 3 structure, an OSI layer 2 structure, such as for example, placing the transport structure in a Realtime Transport Protocol (RTP) structure which is then placed within a User Datagram
- 20 Protocol (UDP) structure, and within an Internet Protocol (IP) structure.

5. The method of Claim 1, wherein the network audio frame includes a LAN audio header followed by at least one block of data from a single audio program.

6. The method of Claim 5, wherein the LAN audio header includes information that  
5 enables the carriage of multiple audio formats within a single multicast stream.

7. The method of Claim 6, wherein the LAN audio header includes information that is used by an end device to extract a single audio program from a multi-program LAN audio stream.

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8. The method of Claim 5, wherein the LAN audio header includes information that enables the carriage of multiple audio sources within a single multicast stream.

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9. The method of Claim 5, wherein the LAN audio header comprises one of at least a version number of a LAN audio protocol, size of a payload, number of programs in the multicast stream, program number, encoding type within the payload, packet sequence (per program), fragmentation (standard or proprietary), and program descriptor.

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10. The method of Claim 1, wherein the addressing for the network audio distribution comprises a predetermined, locally administered multicast address that is consistent with the addressing format of the particular network.

11. The method of Claim 10, wherein the multicast address is a multicast Medium Access Control (MAC) address if a Local Area Network (LAN) is used.

12. The method of Claim 10, wherein the multicast address is locally administered.

13. The method of Claim 10, wherein the multicast address is globally unique.

14. A computer readable medium having stored therein a set of instructions for causing a processing unit to execute the steps of the method of Claim 1.

15. A system for distributing multi-program audio over a network, comprising in combination:

- at least one audio source;
- a network distribution system; and
- at least one end device.

16. The system of Claim 15, wherein the network comprises at least one of a Local Area Network (LAN), a Wide Area Network, an Intranet and Internet.

20        17. The system of Claim 15, wherein the network distribution system is a wired system such as, one of, but not limited to, IEEE 802.3, IEEE 802.5, IEEE 1394, and Home Phone Network Alliance (HPNA).

18. The system of Claim 15, wherein the network distribution system is a wireless system such as, one of, but not limited to, IEEE 802.11, Bluetooth, HomeRF, and IrDA.

5       19. The system of Claim 15, wherein the at least one end device provides a standard interface such as a speaker terminal to a sound-producing device such as, a headphone, and a speaker.

10      20. The system of Claim 19, wherein the end-device is separate from the sound producing device.

21. The system of Claim 15, wherein the end-device is integral with the sound producing device.